

ABSTRACT

TITLE OF THE ABSTRACT :

CHANGES IN ANTERIOR SEGMENT PARAMETERS AND AMPLITUDE
OF ACCOMMODATION FOLLOWING CATARACT SURGERY.

DEPARTMENT : OPHTHALMOLOGY

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DEGREE AND SUBJECT : MS, OPHTHALMOLOGY

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OBJECTIVES: Describe the objectives of your study (maximum 30 words) —

To compare pre and post-operative ocular parameters in cataract surgery with IOL implantation. These include – pupil diameter, anterior chamber depth, corneal thickness, axial length, intraocular pressure and amplitude of accommodation.

METHODS: Explain the clinical and statistical methods used (maximum 100 words)

Tertiary hospital-based, prospective observational study. Pupil diameter, central corneal thickness, axial length and intraocular pressure were recorded using optical biometer; anterior chamber depth was measured using ultrasound A-scan; amplitude of accommodation was recorded using RAF rule. Parameters were measured pre-op, and at 1 and 3 months post cataract surgery. Sample size was calculated as 120. Data were analyzed using STATA 13.1 I/C software. Data were summarized using mean along with standard deviation for continuous variables, and frequency along with percentage for categorical variables. Independent t-test and Chi-square test were used to compare baseline characteristics for continuous and categorical variables.

RESULTS: Summarise the findings and conclusions of your study (maximum 90 words)

There was no statistically significant difference between the pre and post-op undilated pupil diameters after cataract surgery. Dilated pupil diameter was significantly less post-operatively compared to pre-op. Anterior chamber depth was significantly deeper in pseudophakes. Central corneal thickness (CCT) increased after cataract surgery and remained significantly thicker than the pre-operative value at one month post-op. CCT returned to baseline values after 3 months. Axial length remained unchanged after cataract surgery. Post-operative intraocular pressure was significantly lower than pre-operatively. Apparent amplitude of accommodation increased after cataract surgery and IOL implantation.

Keywords: Cataract surgery, pupil diameter, anterior chamber depth, central corneal thickness, amplitude of accommodation.